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PEEL STRENGTH ENHANCEMENT OF COPPER LAMINATES

ABSTRACT

In one aspect, a copper foil for lamination to a dielectric substrate includes a layer deposited on a surface of the copper foil. The layer is formed from chromium and zinc ions or oxides and is treated with an aqueous solution containing at least 0.5% silane. In another aspect, a peel strength enhancement coating is disposed between a copper foil laminate and a dielectric substrate. The peel strength enhancement coating comprises a metal and metal oxide mixture containing a metal selected from groups 5B, 6B, and 7B of the periodic table of the elements. The effective thickness of the peel strength enhancement coating is that thickness capable of providing less than or equal to 10% loss of peel strength, when measured in accordance with IPC-TM-650 Method 2.4.8.5 using a 1/8 inch wide test specimen, after being immersed in 4N HCl at about 60°C for 6 hours.

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